

REMARKS

This Amendment in an RCE is filed in response to the Final Office Action of February 1, 2011 in which claims 1-4, 7-15, 17-20 and 22-41 were rejected.

I. Amended claims

The following amendments have been performed to the claims:

- In independent claim 1, it has been clarified that the quality metrics class defines how the decision whether at least one frame of said at least one media stream is a good frame is made. This amendment is supported by the disclosure of p. 11 of the published WO application. Independent claims 17-20 and 22-24 have been clarified accordingly.
- Furthermore, in independent claim 1 and 24, it has been specified that the respective method is performed by an apparatus. This amendment is inter-alia supported by the disclosure of present claims 19, 20, 22 and 23, respectively, relating to respective apparatuses.

II. Non-statutory subject-matter

In items 2-3 of the Office Action, the subject-matter of claims 1 and 24 has been rejected due to non-statutory subject-matter. This rejection has been overcome by tying the subject-matter of claims 1 and 24 to an apparatus performing the respective methods.

III. Subject-matter of the invention

The present invention relates to methods, a system and apparatuses for reporting/receiving a streaming quality in a streaming system (e.g. a streaming system supporting the 3G Packet-switched Streaming Service, PSS).

A quality of a streaming of at least one media stream is reported based on at least one selected quality metric (e.g. a corruption duration). The at least one selected quality metric is a quality of experience metric that is at least partially based on a decision whether at least one frame of the at least one media stream is a "good frame".

According to the prior art, different streaming clients may report different streaming qualities in this case, because for the same quality metric (e.g. corruption duration), different definitions of a "good frame" may be applied. This ambiguity caused the reported quality metrics to be imprecise and effectively worthless.

However, the present invention, firstly, identifies this ambiguity; and, in order to remove this ambiguity arising from different definitions of a "good frame", it proposes that the reporting of the quality of the streaming is further based on a quality metrics class defining how the decision whether at least one frame of the at least one media stream is a "good frame" is made. The quality metrics class is selected from a pre-defined set of at least two quality metrics classes. Each quality metrics class in the pre-defined set of at least two quality metrics classes defines a different set of rules on how to decide whether a frame of the at least one media stream is a "good frame".

In contrast to the prior art, the present invention allows a concise reporting of a streaming quality. For instance, if a corruption duration, which, inter alia, depends on the decision whether frames of a media stream are good frames or corrupted frames, is selected as quality metric, this quality metric is further specified by the selection of one specific quality metrics class defining how the decision whether at least one frame of the at least one media stream is a "good frame" is made (p. 11 of the published WO application).

IV. Novelty and inventiveness of the subject-matter of the amended independent claims

In the Office Action, it is argued that a combination of already previously cited documents *Seckin* and *Mandato* renders obvious the subject-matter of the independent claims. In the light of the subject-matter of the amended independent claims, this view has to be respectfully contested.

Please note Applicant still holds the view that *Seckin* has been filed after the international filing date (February 12, 2004) of the present patent application so that the subject-matter of *Seckin* relied upon in the Office Action can only be considered to be prior art, if it is already disclosed in the two provisional applications the priorities of which (August 21, 2003 and January 26, 2004) are claimed by *Seckin*. In the Office Action, it is still not indicated how the subject-matter of *Seckin* relied upon is actually supported by the two provisional applications. Although the Examiner has mentioned P1 and P2, referring to the provisionals of *Seckin*, the Examiner has not actually grappled with the question of whether P1 and P2 actually support the applied *Seckin* reference US 2005/0089043. While the Board of Appeals has held in *Ex parte Yamaguchi et al* in Appeal 2007-4412 decided August 29, 2008 that a simple conclusory statement by the Examiner, such as a finding that the provisional application “clearly shows the same subject matter as applied from the ... patent ...”, the Board indicated that this shifted the burden to the Applicant. In the present case, the Applicant has in the first place addressed the content of the provisionals without the burden even having been shifted. Now the Examiner merely makes a conclusory statement without addressing the particulars of the argumentation presented by the Applicant concerning the particulars of P1 and P2. In other words, Applicant believes that the burden has already been shifted back to the Examiner to rebut the particulars of the Applicant’s argumentation pertaining to P1 and P2. Obviously, if the Applicant is correct on the argumentation concerning P1 and P2 presented on November 16, 2010, then the *Seckin* reference is inapplicable. Therefore, the Applicant continues to believe that the Examiner needs to address these questions with particularity in order to convince the Applicant that the applied *Seckin* reference is applicable. As of this moment, the Applicant is not convinced that the *Seckin* reference is applicable for the reasons set forth in the amendment filed November 16, 2010. Nevertheless, and only for the sake of simplicity and not admitting that the applied *Seckin* reference is applicable, the Office Action is presently commented in view of the disclosure of the *Seckin* publication US 2005/0089043.

In the Office Action, the term “quality metric” is mapped to the corruption duration metric of *Seckin*, which is defined as follows:

"Corruption duration, M, is the time period from the NPT time of the last good frame before the corruption, to the NPT time of the first subsequent good frame or the end of the reporting period (whichever is sooner)" (par. [0074] of Seckin).

Thus, the corruption duration metric of *Seckin* may be considered to be at least partially based on a decision whether at least one frame of the at least one media stream is a good frame as required by the subject-matter of the amended independent claims.

Furthermore, the term "set of at least two quality metrics classes" is apparently mapped to the metrics defined in *Seckin*, which are applicable to at least one of audio, video, speech and timed text types (par. [0073] of *Seckin*). It is respectfully submitted that this mapping is wrong in view of the subject-matter of the amended independent claims.

According to the subject-matter of the amended independent claims, the selected quality metric is at least partially based on the decision whether a frame of said at least one continuous media stream is a good frame and the quality metrics class defines how this decision is made. Therein, the quality metrics class is selected from a pre-defined set of at least two quality metrics classes, wherein each quality metrics class in the pre-defined set defines a different set of rules on how to decide whether a frame of said at least one continuous media stream is a good frame.

In *Seckin*, only the following definition of a good frame is provided in the context of the corruption duration metric:

*"A good frame is a 'completely received' frame X that:
either it is a refresh frame (does not reference any previously decoded frames
AND where none of the subsequent received frames reference any frames decoded
prior to X);
or does not reference any previously decoded frames;
or references previously decoded 'good frames'" (par. [0074]-[0077]).*

This definition may only be considered to anticipate one quality metrics class having a set of rules defining how the decision (on which the corruption duration metric

is at least partially based) whether a frame of the at least one continuous media stream is a good frame is made.

It is however not apparent at all that these rules defined in the context of the corruption duration metric are different for different media types as asserted on p. 22 of the Office Action. According to *Seckin*, the metrics defined therein are applicable to at least one of audio, video, speech and timed text types. In other words, the above definition of a good frame given in the context of the corruption duration metric is applicable to at least one of audio, video, speech and timed text types. It is however not stated in *Seckin* that different media types have different set of rules for what exactly is considered to be a "good frame" (see p. 22 of the Office Action).

Please note, in contrast to the assertion on p. 21 of the Office Action, examples of quality metrics classes are given in the specification of the application. For instance, on p. 22 of the published WO application it is explicitly stated that the present invention proposes three different methods (i.e. quality metrics classes) to judge whether frames of the continuous media stream are good frames and that each of the respective methods is uniquely identified by one of the values "0", "1" and "2" that the Metrics-class field can be assigned. The three different judging methods are explained in detail on p. 22-29 of the published WO application (see sections: first judging method, second judging method and third judging method). Thus, the term "class" used in the present patent application is not broad terminology which could also be interpreted as a type or category as asserted in the Office Action.

Furthermore, the subject-matter of the amended independent claims still requires that the quality metrics class defining how the decision whether a frame of said at least one continuous media stream is a good frame has to be come to is selected from a pre-defined set of at least two quality metrics classes with each quality metrics class in this set defining a different set of rules on how to decide whether a frame of said at least one continuous media stream is a good frame.

Since, apart from the definition of a good frame provided in the context of the corruption duration metric, no other definition of a good frame is provided in *Seckin* at all, *Seckin* clearly fails to anticipate the set of at least two quality metrics classes as required by the subject matter of the amended independent claims.

Please note that *Mandato* only generally pertains to the negotiation of QoS (e.g. QoS of a video streaming session), but does not relate to any definition whether or not a frame is a good frame. Furthermore, *Mandato* does not specify how violations of the negotiated QoS are controlled and reported. Thus, *Mandato* neither discloses that a quality of a streaming is reported based on a selected quality metric nor does it relate to quality metrics classes at all as required by the subject matter of the amended independent claims.

Therefore, it is also not apparent that the set of at least two quality metrics classes as required by the subject matter of the amended independent claims is rendered obvious by a combination of *Seckin* and *Mandato*.

A first achievement of the present invention is to identify that there is an ambiguity arising from different definitions of a "good frame" in the prior art and a second achievement is the proposal to use quality metrics classes defining a specific set of rules on how to decide whether or not a frame is a "good frame" in order to remove this ambiguity. The selected quality metrics class specifies the definition of a "good frame" that is applied when the selected quality metric is reported. Therein, the pre-defined set of at least two quality metrics classes allows the application of different definitions of a good frame without resulting in an imprecise reporting of a streaming quality.

Applicant respectfully submits that none of the cited prior art documents even identifies that there is an ambiguity arising from different definitions of a "good frame" and, thus, it is also not apparent at all that these prior art documents render obvious the subject-matter of the amended independent claims, which allows to remove this

ambiguity by the selection of a quality metrics class from a set of at least two quality metrics classes as required by the subject matter of the amended independent claims.

The objections and rejections of the Final Office Action of February 1, 2011, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-4, 7-15, 17-20, and 22-41 to issue is earnestly solicited.

Respectfully submitted,

/Francis J. Maguire/

Francis J. Maguire
Attorney for the Applicant
Registration No. 31,391

FJM/lk

Customer No. 10945